This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-6. (Canceled)

7. (Previously presented) An electric energy meter for measuring electrical energy usage over a wide dynamic range of standard service voltages, wherein the electrical energy meter is used by an electric utility for customer billing purposes, and wherein the electrical energy meter can be connected to a polyphase electrical service to measure electrical energy on more than one phase at a time, the meter having a power supply comprising:

a transformer having first and second windings, the power supply being capable of receiving any input voltage within the wide dynamic range of standard service voltages, which input voltage is provided to the first winding so that current flows through the first winding, wherein the second winding defines an output of the power supply, wherein the output is regulated to provide a predetermined output voltage independent of the input voltage, and wherein the wide range of service voltages include RMS voltages between about 96 Vrms and about 528 Vrms.

8. (Previously presented) The power supply of claim 7, wherein the transformer comprises a third winding substantially similar to the second winding, so the voltage across the third winding is similar to the voltage across the second winding.

9. (Previously presented) The power supply of claim 7, further comprising a charge means, connected to the second winding, for storing an electrical charge when current

is flowing through the first winding and for discharging stored electrical charge when current flowing through the first winding is interrupted.

10. (Previously presented) The power supply of claim 8, further comprising:

a switching member connected to the first winding;

a controller connected to the switching member and to the third winding, wherein the controller receives a sense signal from the third winding and sends a control signal to the switching member based on the sense signal, and wherein the control signal opens and closes the switching member to permit and prevent a flow of current to the first winding and to regulate the output of the power supply on the second winding.

11. (Previously presented) The power supply of claim 10, wherein the control signal operates to disable the switch means.

12. (Previously presented) The power supply of claim 10, wherein the switching means comprises a first transistor, connected between the first winding and ground, and wherein the control means comprises an oscillator, connected to the base of the transistor, for generating an oscillating signal for switching the transistor on and off, wherein the control signal causes the output of the oscillator to disable the first transistor.

13. (Previously presented) The power supply of claim 12, wherein the first transistor comprises a 600 volt MOSFET device.

14. (Previously presented) The power supply of claim 12, wherein the oscillator comprises a ring oscillator.

15. (Previously presented) The power supply of claim 10, wherein the control means comprises an over current protection detector and a means for voltage protection control.

16. (Previously presented) The power supply of claim 15, wherein the control signal is generated in response to an output of one of the over current protection detector and the means for voltage protection control.

17. (Previously presented) The power supply of claim 15, wherein the transformer further comprises a third winding operatively interfaced to provide feedback to the means for voltage protection control thereby regulating the output, wherein the output is electrically isolated from the first winding.

18. (Previously presented) The power supply of claim 10, further comprising voltage clamping means, connected to the transformer and the switch means, wherein the input voltage is applied to the voltage clamping means, for limiting the voltage applied to the transformer.

19. (Previously presented) The power supply of claim 18, wherein the clamping means comprises first and second transistors and biasing means, connected to the first and

second transistors, wherein the biasing means biases the first and second transistors so that the voltage provided by the clamping means does not exceed a desired level.

20. (Previously presented) The power supply of claim 18, wherein the clamping means disables the switch means when the input voltage exceeds the desired level.

21. (Withdrawn) An electrical energy meter for measuring electrical energy usage over a wide range of standard service voltages, comprising:

a transformer comprising a first winding, a second winding, and a third winding, wherein an input voltage within the wide dynamic range of standard service voltages is provided to the first winding so that current flows through the first winding, and wherein the second winding defines the output of the power supply;

a switching member connected to the first winding;

a controller connected to the switching member and to the third winding, wherein the controller receives a sense signal from the third winding and sends a control signal to the switching member based on the sense signal, and wherein the control signal opens and closes the switching member to permit and prevent a flow of current to the first winding and to regulate the output of the power supply; and

a voltage blocking clamp connected to the transformer and to the switching member, wherein the input voltage applied to the transformer is limited and blocked by the voltage blocking clamp, and wherein the voltage blocking clamp comprises first and second transistors and creates a bias voltage provided to the first and second transistors, wherein the

bias voltage biases the first and second transistors so that an output voltage provided by the voltage blocking clamp does not exceed a desired level.

22. (Withdrawn) A electrical energy meter for measuring electrical energy usage over a wide range of standard service voltages, comprising:

a transformer comprising first and second windings, wherein an input voltage within said wide range is provided to said first winding so that current flows through said first winding, and wherein said second winding defines the output of said power supply;

a switching member connected to said first winding, for permitting and preventing the flow of current through said first winding, wherein said switching member is operable in response to a control signal;

a controller connected to said switching member and to a third winding of said transformer, for generating said control signal in response to a signal from the third winding; and

a voltage blocking clamp, connected to said transformer and said switching member, wherein said input voltage is applied to said voltage blocking clamp, for limiting and blocking the voltage applied to said transformer, said voltage blocking clamp comprising first and second transistors and biasing means connected to said first and second transistors, wherein said biasing means biases said first and second transistors so that the voltage provided by said voltage clocking clamp does not exceed a desired level.

23. (Withdrawn) The electric energy meter of claim 22, wherein the voltage blocking clamp disables the switching member when the input voltage exceeds the desired level.

24. (Withdrawn) The electric energy meter of claim 23, wherein the third winding is substantially similar to the second winding, so the voltage across the third winding is similar to the voltage across the second winding.

25. (Withdrawn) The electric energy meter of claim 23, wherein the control signal operates to disable the switching member.

26. (Withdrawn) The electric energy meter of claim 22, wherein the switching member comprises a third transistor, connected between the first winding and a ground, and wherein the controller comprises an oscillator connected to the base of the third transistor, wherein the oscillator generates an oscillating signal for switching the third transistor on and off, and wherein the control signal causes the output of the oscillator to disable the third transistor.

27. (Withdrawn) The electric energy meter of claim 26, wherein the third transistor comprises a 600 volt MOSFET.

28. (Withdrawn) The electric energy meter of claim 26, wherein the oscillator comprises a ring oscillator.

29. (Withdrawn) The electric energy meter of claim 22, wherein the controller comprises a current sensor for sensing the current flowing through the first winding and for generating a sensed current signal, a reference current generator for generating a reference

current signal in response to a signal reflective of the output of the power supply and a comparator for comparing the sensed current and the reference current.

30. (Withdrawn) The electric energy meter of claim 29, wherein the control signal is generated in response to the comparator determining that the sensed current signal exceeds the reference current signal.

31. (Withdrawn) The electric energy meter of claim 29, further comprising a current-mode regulator, connected to the third winding, wherein the current reference signal is generated by the current-mode regulator.

32. (Withdrawn) The electric energy meter of claim 22, further comprising a capacitive device connected to the second winding for storing an electrical charge when current is flowing through the first winding and for discharging stored electrical charge when the switching member interrupts current flowing through the first winding.

33. (Withdrawn) The electric energy meter of claim 23, wherein the voltage blocking clamp is connected in series with the transformer and the switching member.